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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,585	10/29/2003	Bradley Engstrand	MOT-P-03-002	7691
29013	7590	02/02/2006	EXAMINER	
PATENTS+TMS, P.C. 2849 W. ARMITAGE AVE. CHICAGO, IL 60647			LUU, THANH X	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/697,585	ENGSTRAND, BRADLEY
	Examiner Thanh X. Luu	Art Unit 2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 December 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 and 9-20 is/are rejected.
- 7) Claim(s) 21 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

This Office Action is in response to amendments and remarks filed December 30, 2005. Claims 1-7 and 9-21 are currently pending.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wickman et al. (U.S. Patent 3,703,682).

Regarding claims 18-20, Wickman et al. disclose (see Figs. 1 and 2) a method for measuring a position within a cylinder (11, 49) having walls defining an interior (towards a center of cylinder) wherein the cylinder has an interior surface (inner) and an exterior surface (outer) wherein the cylinder has an aperture (at 15) within one of the walls and further wherein the cylinder has a head (47) within the interior wherein the head is movable within the interior of the cylinder, comprising the steps of: directing light (from 21) into the interior of the cylinder through the aperture; attaching a light sensor (27) to the interior surface of the cylinder wherein the light sensor extends inward (width of the sensor) with respect to the interior of the cylinder; detecting (with 27) an amount

of the light in the interior of the cylinder which is not absorbed by the interior surface and the head of the cylinder wherein the light sensor detect the amount of light; and determining a position of the head in the interior of the cylinder wherein the position of the head corresponds to the amount of light detected by the light sensor (see Fig. 3). Further, since air (a gas) is present in the cylinder, a fluid is within the cylinder as claimed. As understood, light detected by the light sensor is inherently not absorbed by the head or the interior surface since light does reach the light sensor.

3. Claims 9-12 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Arshad et al. (U.S. Patent 6,484,620).

Regarding claims 9-12 and 14-16, Arshad et al. disclose (see Fig. 1) a system for monitoring position, comprising: a cylinder (12) having walls defining an interior (inside) wherein the cylinder has a shaft (24) within the interior wherein the shaft extends through a first wall (at 16) of the cylinder and wherein the shaft is moveable within the interior of the cylinder and further wherein the cylinder has an aperture (at 17 as applied to claim 10; at 46 as applied to claims 14 and 15) in the first wall adjacent to the shaft; and a sensor (combined 48, 40) within the interior of the cylinder wherein the sensor extends inward with respect to the interior of the cylinder wherein the sensor detects an amount of light within the cylinder which is not absorbed by the shaft and further wherein the amount of light detected by the sensor corresponds to a position of the shaft within the interior of the cylinder. As understood, light detected by the light sensor is inherently not absorbed by the shaft since light does reach the light sensor. Arshad et al. also disclose (see Fig. 1) the sensor is located on a second wall (not labeled)

opposite the first wall; a fluid (air) within the system; a head (22) attached to the shaft; a processor (39) connected to the sensor.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arshad et al.

Regarding claim 13, Arshad et al. disclose the claimed invention as set forth above. Arshad et al. do not specifically disclose a second shaft as claimed. However, choosing to provide a second shaft for additional support is a matter of design choice and requires only routine skill in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide such a second shaft in the apparatus of Arshad et al. to obtain additional support and resilience.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arshad et al. in view of Lee et al. (U.S. Statutory Registration H277).

Regarding claim 17, Arshad et al. disclose the claimed invention as set forth above. Arshad et al. do not specifically disclose a light absorbing coating on the shaft as claimed. Lee et al. teach (see Fig. 2) a coating on a shaft for absorbing light. Thus, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to provide such a coating in the apparatus of Arshad et al. in view of Lee et al. to reduce spurious reflections and improve detection.

***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-7 and 18-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 and 17-22 of U.S. Patent No. 6,952,009. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '009 patent claim: a cylinder, a first wall, a shaft, a second wall, a sensor on the second wall and measuring a position. The '009 patent does not claim an aperture or an aperture wherein light projects through the aperture into the cylinder. However, simply translating the light source of the '009 patent from on or within the cylinder to an external configuration is well known and

would require only routine skill in the art. For instance, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an external light source for easier replacement.

***Allowable Subject Matter***

9. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Claims 1-7 would be allowable once the double patenting rejection is overcome.

***Response to Arguments***

11. Applicant's arguments filed December 30, 2005 have been fully considered but they are not persuasive.

Applicant asserts that Wickman et.al. does not disclose detecting an amount of light which is not absorbed by the interior surface and the head. Examiner disagrees. Whatever light that is detected by the light sensor is inherently not absorbed by the interior surface and the head. In other words, whatever light is absorbed by the interior surface or the head would not reach the light sensor at all. Such limitations are also inherent in Arshad et al.

Thus, as set forth above, this rejection is proper.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

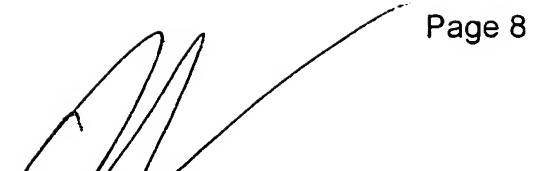
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Thanh X. Luu  
Primary Examiner  
Art Unit 2878

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